



US006802818B2

(12) **United States Patent**
Wang et al.

(10) **Patent No.:** **US 6,802,818 B2**
(45) **Date of Patent:** **Oct. 12, 2004**

(54) **MULTI-FUNCTIONAL MASSAGE DEVICE**

(76) Inventors: **Kuan Yun Wang**, No. 3, Lane 414, Sec. 2, An Kang Rd., Hsintien City, Taipei Hsien (TW); **Hon-Shen Chew**, No. 4-3, Lane 40, Chu Kuang Rd., Pan Chiao City, Taipei Hsien (TW); **Wei Lin Chen**, No. 12, Fu An Hsin Tsun, Ta Hsi Jen, Tao Yuan Hsien (TW)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 160 days.

(21) Appl. No.: **10/300,780**

(22) Filed: **Nov. 21, 2002**

(65) **Prior Publication Data**

US 2004/0102725 A1 May 27, 2004

(51) **Int. Cl.**⁷ **A61H 23/02; B43K 29/00**

(52) **U.S. Cl.** **601/72; 601/80; 401/195**

(58) **Field of Search** 601/46, 67, 69, 601/70, 72, 80, 81, 82, 141, 142; 401/52, 109, 195; 362/118

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,165,814 A * 11/1992 Buda 601/80

5,244,299 A * 9/1993 Chu 401/195
5,688,063 A * 11/1997 Yu et al. 601/72
6,037,078 A * 3/2000 Siu-Man 601/70
6,213,961 B1 * 4/2001 Reinsma 601/80
6,604,880 B1 * 8/2003 Huang et al. 401/195

* cited by examiner

Primary Examiner—Nicholas D. Lucchesi

Assistant Examiner—Quang D Thanh

(74) *Attorney, Agent, or Firm*—Browdy and Neimark, P.L.L.C.

(57) **ABSTRACT**

A multi-functional massage device has an accommodating body, an actuating element located above the accommodating body, and a casing. A vibration motor is arranged in the accommodating body. A conductive column electrically connected to one electrode of the vibration motor is formed on a top of the accommodating body. The actuating element has a collar, a cap, a ring, and a conductive spring. One open end of the collar receives the cap. A ring is formed at a lower portion of the actuating element. A conductive spring is mounted between the column and the ring. The casing receives the accommodating body, the ring, the conductive spring, and a battery that is electrically connected to another electrode of the motor. The protrusion, the top of the conductive spring, and the conductive column are aligned with one another. The battery is further electrically connected to the casing.

10 Claims, 7 Drawing Sheets

